

Application No.: 10/777,910

Docket No.: JCLA11460

AMENDMENT**In The Claims:**

Please amend the claims as follows:

Claim 1 (canceled)

Claim 2. (currently amended) A non-coherent frequency shift key demodulating circuit, comprising:

an oversampling device, for receiving and examining an input digital non-coherent frequency shift key signal carrying a digital signal upon existence of transition, and further outputting a data bit signal recording whether a transition exists or not;

a chain of registers, coupled to the oversampling device, receiving the data bit signal, and further counting and storing a quantity of logic high level status of the data bit signal received, and outputs a number-of-ones value signal correspondingly;

a threshold device, coupled to the chain of registers, for receiving and comparing the number-of-ones value signal with a predetermined threshold value to determine the digital signal carried in the input digital non-coherent frequency shift key signal~~The non-coherent frequency shift key demodulating circuit of claim 1,~~ wherein if the digital frequency shift key signal has a first frequency and a second frequency respectively representing a logic high level and a logic low level, the predetermined threshold value is determined as a quotient of a system data rate dividing a sum of the first frequency and the second frequency.

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Claim 3. (currently amended) The non-coherent frequency shift key demodulating circuit of claim 1, wherein the data bit signal is logic high level if a transition of the input digital non-coherent frequency shift key signal exists, and the data bit signal is logic low level if no transition of the incoming input digital non-coherent frequency shift key signal exists.

Claim 4 (currently amended) The non-coherent frequency shift key demodulating circuit of claim 1, wherein the digital signal is determined a low level digital signal if a number-of-ones value signal is smaller than the predetermined threshold value, and the digital signal is determined a high level digital signal if the number-of-ones value signal is higher than the predetermined threshold value.

Claim 5 (canceled)

Claim 6. (currently amended) A non-coherent frequency shift key demodulating method, comprises:

receiving and examining an input digital non-coherent frequency shift key signal carrying a digital signal upon existence of transition, and further outputting a data bit signal recording whether a transition exists or not;

receiving the data bit signal, and further counting and storing a quantity of logic high level status of the data bit signal received, and outputs a number-of-ones value signal correspondingly~~The non-coherent frequency shift key demodulating method as recited in claim 5,~~

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wherein if the digital frequency shift key signal has a first frequency and a second frequency respectively representing a logic high level and a logic low level, the predetermined threshold value is determined as a quotient of a system data rate dividing a sum of the first frequency and the second frequency.

Claim 7. (currently amended) The non-coherent frequency shift key demodulating method as recited in claim 5 6, wherein the data bit signal is logic high level if a transition of the input digital non-coherent frequency shift key signal exists, and the data bit signal is logic low level if no transition of the incoming input digital non-coherent frequency shift key signal exists.

Claim 8. (currently amended) The non-coherent frequency shift key demodulating method as recited in claim 5 6, wherein the digital signal is determined a low level digital signal if a number-of-ones value signal is smaller than the predetermined threshold value, and the digital signal is determined a high level digital signal if the number-of-ones value signal is higher than the predetermined threshold value.